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Health

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EDITORIAL

Health in Relation to Unemployment

"UNEMPLOYMENT, by compelling millions of families to reduce their standard of living to a well-nigh intolerable level, constitutes a real danger in the internal politics of the country"—thus observes Prof. Friedrick Schmidt, Councillor in the Ministry of Labour of the German Riech, in his admirable contribution entitled "Suburban settlements for unemployed in Germany" published in the Quarterly Bulletin of the Health Organisation of the League of Nations Vol. II No. 4, December 1933. This is true not only of Germany but of every other nation in the world. Unemployment is growing by leaps and bounds and the present-world depression has only served to accentuate its horrors. We hear everywhere to-day of labour disputes, strikes and lock-outs, shootings and suicides and general insecurity of person and property-not to mention the woes and wailings of hungry men, women and children in millions of destitute homes. To a lay mind like ours, the root cause of unemployment seems to be the rapid dethronement of man-power by machinery, especially during the past quarter of a century. While on the one hand there is over-production of commodities, there is, on the other, not the wherewithal to purchase them. People thus suffer poverty in the midst of plenty. We are not here concerned with this aspect of unemployment-the economic aspect-which is for experts in economics and finance to solve. Our present concern is to find out the effect of unemployment on health. Recently, the Government of the United States of America, ordered a thorough and careful investigation regarding the effect of the depression on health and the following findings were recorded ;—

(1) "That the death-rate has shown a surprisingly large decrease during the years of the depression in spite of the undoubted hardship of unemployment and consequent loss of income for many".

(2) "That excesses of eating and drinking, as well as the nervous tension incident to a modern life of prosperity, have been reduced and for this reason health has really improved during the depression".

Now the question arose as to how far depression had affected the health of 'the poor', 'the moderate' and 'the comfortable' class severally, for it was feared that "an actual increase in death rate among these unemployed and their families could have taken place but has been entirely masked by the downward trend of the death-rate among the more prosperous members of the population". A further investigation was therefore started and house to house canvass of some 12,000 families in ten cities was conducted.

A report by H. S. Cumming, surgeon-general, United States Public Health Service, on five of the canvassed cities (*vide* Quarterly Bulletin of the Health organization of the League of Nations Vol. III No. 1. March 1934) gives some interesting details and has established beyond a shadow of doubt, that the health of the unemployed has undergone considerable deterioration during this period of depression. His conclusions were :—

(1) "that the 'poor' group which made up only 13% of the total in 1929, constituted 51% in 1932, while 'the comfortable' group dropped from 57% of the total in 1929 to 10% in 1932".

(2) "that those individuals who suffered the greatest reductions in income between 1929 to 1932 have the highest sickness rates".

(3) "that respiratory illness constitutes a large part of all the sickness and among children, the infectious and communicable diseases occur frequently".

The unemployment problem in India is unique in itself. India is 85% agricultural and only 15% industrial. These 85% of the population are unemployed for 6 months in the year. In other words, they are starving or half-starved for 6 out of 12 months. The old cottage industries which fed these poor masses have perished and there is no prospect in the near future of their revival. The agriculturists have to rest content with the cultivation of paddy, wheat or other cereals only. Indigo, ground-nut and such other crops which had a favourable market in Europe till a few years ago, are no more wanted there, because chemical substitutes have come to fill their places. In villages, one finds nothing but naked walls and deserted homes, with a few miserable specimens of cattle and humanity dragging on their weary, hungry existence from day to day. Every year, we see hungry but patient, silent marchers from villages to the nearest towns or cities in quest of jobs and returning to their homes, none the better for their exodus. While such is the condition of our Indian Villages to-day, the Government and responsible politicians advise young educated middle class unemployed in towns and cities to go to villages, till the lands and live. In other words, they are asked to quit Schylla and settle down in Charibidies. These

young men have already pawned their little holdings and invested the amount on a soulless education, which at one time gave them bread but now denies even that. The problem of unemployment of the educated middle class is becoming more and more acute. In Germany, suburban settlements have been established for the benefit of the unemployed. Prof. Schmidt summarizes the activities there in these words :—" Up to the present about 26,000 allotments have been established with the aid of loans and most of them are already occupied: 15,000 are still in construction. In addition, over 70,000 worker's gardens have now been laid out with the fund supplied by the Reich for the purpose" What has the Government of India done for the relief of unemployment in this country? The answer to this is to be found in the interview given by Sir Abdur Rahim recently to a Press representative, which we reproduce here for the edification of our readers :—

" They have not yet, however, taken in hand any large comprehensive plan for the development of the resources of the country and towards solving the enormous problem of unemployment and for generally uplifting the present miserable condition of millions of people, which has no parallel in any other country.

We hope that in the future Assembly a steady pressure of public opinion will be put upon the Government in these matters of vital importance to the people, and that the Government will not confine their attention merely to securing power without satisfying the public that the powers they want will be utilised for the benefit of all the sections of people and specially of the general population ".

The unemployment problem is more easy of solution in India than in any other country in the world. Indians are by nature and temperament a contended, God-fearing people. They will always look upon the woes of others as their own and can adjust differences easily. What are absolutely needed for the Indian peasants at the present time are: (1) a never-failing source of irrigation to protect them from frequent droughts. There are abundant natural sources and the Government must find sufficient funds to harness and improve them ; (2) a cottage industry such as the charka or the hand-loom to provide them with clothing and supplementary income for the off-season, (3) land mortgage-banks to furnish them with the necessary capital to purchase cattle, seeds &c., on the mortgage of their lands or produce and thus free them from the clutches of sowcars (4) marketing facilities for the sale of their produce at favourable rates and (5) lessening of the burden of land-tax, which has well-nigh choked them and reached the breaking point. As for the industrialists, nothing but good-will and sympathy on the part of the employers will produce peace and contentment among them. The labourer is always worthy of his hire and he must be given a living wage and not the starvation dole. The law of supply and demand should not be taken undue advantage of. Illness and inefficiency are the outcome of forced, half-starved labour. To prevent labour disputes, arbitration boards must be set up consisting of the representatives of

both labour and capital. Government, as employers of large labour must set an example to other capitalists in this direction. Indigenous industries to flourish must have protection; free-trade, preferential tariff, and all those economic conumdrums will do no good to an industrially backward country like India. As regards the educated middle class unemployed, the solution lies in Government curtailing their top-heavy establishment and engaging more hands at the bottom. The village officials, most of whom are uneducated people, fond of feuds, factions and litigations, can be replaced by these educated young men on a decent salary. There is need in a village or a group of villages for a revenue official, an accountant, a medical officer, a sanitary officer, a co-operative officer, a law administrator and what not. All these are combined at present in the village munsiff and the karnam who know nothing of law, sanitation medicine, accounts or banking. If educated young men who can be made to qualify for all these duties, can be employed in villages, half the battle of their unemployment will be won. This will be an incentive for more educated young men to settle down in villages, and not the lure of land. Money must be found, as we have already said, in reduction and retrenchment at the top. We commend the above suggestions for the serious consideration of the Government.

Sun-light the Healer

By

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FROM earliest times the sun has been worshipped as the giver of life and health. The ancient Egyptians idolized their sun god, Ra, the Giver of All Life. He was the centre of the universe. The Philistines found in Baal a combined god of sun and healing. Mithras was the sun god of the Persians, the source of unending health. Among the ancient Greeks Aesculapias was the god of the sun, medicine and music. The Romans were ardent sun-worshippers. During the reign of Constantine, there was widespread worship of the sun.

From folklore to rational medicine passed the worship of the sun as a life giver and mighty medicine. The early doctors realized that the sun is of great value in curing disease and in maintaining health. Hippocrates, the Father of Medicine, built a great health temple on the Island of Cos where sun treatment was extensively given. Antyllus, a surgeon of note in Rome, treated many cases of bone weakness and skin disease by the light of the sun. Likewise did Avicenna, greatest of all Arabian doctors, commend the sun to his patients as a health giver. Down through the ages passed the knowledge that the sun was of value as a healer.

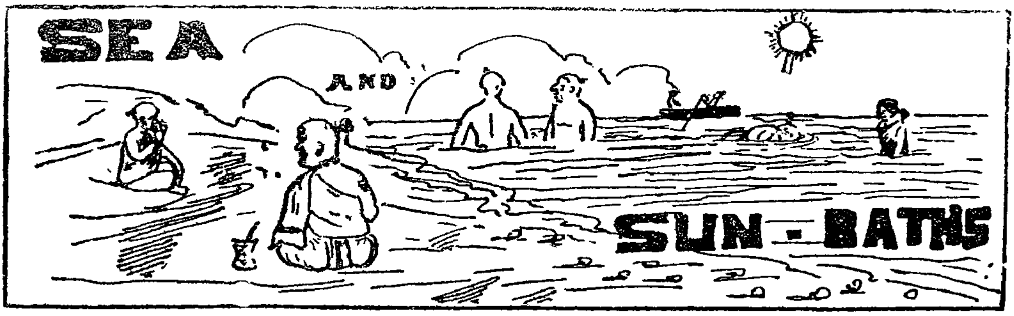
The Sun becomes a Recognized Medicine.—While the sun had been appreciated from the earliest times as a valuable aid to health it was not until 1777 that sun rays were used with any degree of understanding in the treatment of disease. In 1796 the University of Gottingen offered a prize on the best essay written on the curative value of sunlight. This aroused a great deal of new interest on the subject. It was then shown that in higher altitudes a better exposure to the sun could be obtained.

In 1840 the first modern solarium was built in Germany. In that year also sunlight was advocated for the treatment of tuberculosis of the joints. In the war of 1870 the sun for the first time played a part as a healer. Wounds were found to heal much better when exposed to the sun.

It was Niels Ryberg Finsen who was the first of the great light bringers. Dr. Finsen was interested in light from early boyhood. He observed its influence on animals and later on human beings. In July of 1893 he began to treat smallpox patients by excluding the socalled chemical rays of the sun by means of red curtains. One of his associates showed that the power of destroying germs resided in the ultraviolet rays of the sun.

It was Finsen who separated the various rays of the sun into harmful and beneficial rays. His object was to use only the red rays of light, those having the slightest chemical action, and were produced by passing the sun rays through red glass to reduce the heat producing rays to a minimum.

Making Artificial Sunlight.—In 1813 Sir Humphrey Davy used a battery of two thousand cells and produced an electric arc between carbon points four inches apart. This was the first time artificial sunlight had been used. It was crude but it was a step in the right direction. The modern carbon arc lamp was evolved from Davy's original experiment through many years of improvements.



Ancient Indo-Aryans were also ardent Sun-Worshippers.

Another source of artificial sunlight was discovered in 1835 when Wheatstone, an English scientist reported that mercury vapour in an electric arc emitted brilliant light. In 1892 Dr. Arons discovered that an electric current passed through a vacuum tube containing a small amount of metallic mercury produced a peculiar bluish light. Not long thereafter, Cooper Hewlitt, the American engineer, made a lamp based on Arons' discovery.

This lamp later became famous because of the small amount of current which it consumed in giving off a very intense purple light.

Inspite of these advances the production of useful curative mercury lamps could not be undertaken until transparent fused quartz had been made. It was known of course that fused quartz had been made in a blast furnace as long ago as 1766, but throughout the years it remained little more than a scientific curiosity. In 1903, Heraeus found methods of making clear transparent fused quartz at comparatively small cost. He made possible the manufacture of the mercury vapour arc in quartz. Since then many hundreds of thousands of sun lamps have been put on the market. Not only does every modern doctor's office have one of these lamps, but in the homes of the more intelligent Americans they are gradually finding their place.

Sunlight is Split up.—After the value of sunlight had been established in medicine scientists began to evince an interest in the composition of sunlight; they began to split it up into waves. After they got through they found that the waves varied from 2000 to 40,000 units. It was also found that these waves could be grouped in accordance to their influence on the body in health and disease.

Dr. Eidninow was thus able to show that sunlight increased the ability of the body to resist disease and infection. Drs. Steenbock, Heilbron, Morton, Kamm and others showed that sun rays between 2300 and 3000 units had great healing effects on weak bones. Dr. Sonne showed that sun rays in the vicinity of 2600 units were of great value in killing germ life. It was also shown that infra red waves were effective pain killers.

Doctors and biologists became more and more interested in the power of sunlight as the years went by. Biologists showed that frog's eggs developed in tiny froglets only in the presence of sunlight. Doctors showed that growth of hair and nails was stimulated by the sun. Biologists reported that chickens could develop only when given sufficient sunlight. Doctors showed that sunlight was a great wound healer. Botanists demonstrated that the sun gave life and growth to seeds and caused them to develop into sturdy plants.

As knowledge concerning sunlight increased doctors began to talk about the sun in health with increasing confidence. Dr. Bernhard expounded that sunlight loaded the blood and tissues with light energy. It gave vigorous blood to anaemics. It stimulated the circulation. The sun was also found to be something of a physiological riddle: It made fat people thin, and thin people gained weight. It raised low blood pressure and it lowered high blood pressure. The sun is the greatest balancing mechanism in the universe. Said Johannes Muller: "In the dark we are never particularly witty". Sun and wit; wun and health; sun and light.

Bottling Sunshine.—In the year 1742, Dr. Harris, a London physician, made an astonishing discovery. He found that the sun imparted its life and health giving properties to inert substances by simply drenching them with its rays. He recommended particularly

"ground up clam shells which have lain for a long time in the sun".

Not very much attention was paid to Dr. Harris's discovery until 1924 when two American scientists found that sunlight could be bottled in milk, in oil, in cereals and other article of food. Independently in that year Drs. Hess and Steenbock discovered that ultra-violet rays of the sun conferred bone strengthening and bone healing qualities on food. One year later Drs. Hess and Weinstock showed that milk which had been subjected to the action of sun light could be used as a patent medicine in preventing and curing infantile rickets.

In 1926 the interest in bottled sunshine increased ; futher discoveries of great importance were made. Drs. Windhaus, Hess, Rosenheim and Webster found that when sunlight was allowed to act on a substance known as ergosterol a most interesting medicine was obtained. Ergosterol itself could not be given in pure form. It had to be given in association with some other substances ; the most common was oil. A little of it was dissolved in cod liver oil and most effective medicament was obtained. Later, when halibut oil came into use it was also given dissolved in that oil. After methods of manufacturing had been so perfected that sun drenched ergosterol in cod liver oil could be distributed in great quantities, doctors found that they had a new and very valuable medicine to fight disease.

Ergosterol in oil was given in drops, varying from nine to ninety drops a day. These drops were given in milk or some other drink. Ergosterol was found to be the best preventive for rickets that modern medicine had to offer. It was also found to be of value in another bone disease occurring in adults, a disease in which the bones became as soft as putty, bending and twisting out of shape under the patient's weight. Bottled sunlight in oil was about the best medicine known for the prevention and alleviation of this disease.

In still another disease known as tetany in which there is one convulsion after another and which is due to a lack of calcium and phosphorus in the nervous tissues, bottled sunshine also proved to be the easiest and most effective of medicines. Premature and weak infants were also found to be very much benefitted by giving them drops of golden sunlight in oil.

In 1930 Drs. Moore, Dennis and Phillips at Portland, Oregon, after a great deal of experimentation came to the conclusion that it was impossible to give enough cod liver oil to prevent rickets and other deficiency diseases. In the Pacific Northwest the sun does not shine too brightly nor too long to secure much of a curative effect. It was for this reason that they determined to use bottled sunshine in the form of irradiated ergosterol in cod liver oil. They began an impressive series of experiments with this medicine. They found that newborns who received ten drops of activated ergosterol solution daily from birth were noticeably superior to those not receiving it. Twins and premature infants required this life saving oil in order to thrive and develop into normal and healthy children. They also found that pregnant women to whom they gave six drops of this bottled sunshine daily

were delivered of unusually well-formed and vigorous infants. Also they found that regular rations of this sun-blessed oil given to children to and through puberty prevented postural defects.

The future of Sun Healing.—The sun is not only the centre of the solar system; it is also the giver and sustainer of life. As the years go by it is being more and more appreciated as a very potent factor in creating and maintaining health, in abolishing deficiencies in bone, blood and muscle, and in destroying disease.

In ancient times sun was the chief factor in providing the necessary sunshine for life and health. With the steady advance of knowledge man brought the sun to the earth. He made an artificial sun after he had learned what sun-shine was made of. He made this artificial sun in the form of lamps containing black carbon, silver mercury or clear quartz which had been fused in a fierce heat. From these elements he drew pure sunlight whenever he needed it where he wanted it. The sun became available in the darkest hours of the night and in the coldest and blackest months of winter.

The sunlight, both natural and artificial, was made to build strong and healthy bones; to fortify weak blood, to strengthen flesh and nerves. Bottled sunshine also proved of value in still other diseases. The first conquest of man over the sun was made when he found that he could build little suns in the form of lamps; the second was made when he found that he could capture the golden sun beams and imprison them in oil.

The work of exploring the medicinal qualities of the sun is still going on. Almost daily new cures are being found for it. Resistant ulcers are made to dry up. Skin disorders such as acne, eczema and neurodermititis yield to sunlight. Consumption of the bones is alleviated to a great extent. There is hardly a disease which is not in some way made to yield to the sun. The sun is perhaps the greatest of all the healing energies.

NO DEPRESSION HERE

As stated in the ' West Coast Druggist ' the president of the American Tobacco Company receives $ 789,500 a year in salary and bonus. Two vice-presidents of the company receive compensation of $ 451,700 a year. The company showed a surplus at the end of 1932 of $ 118,107,617 (about Rs. 30,70,79,804) which is a healthy increase over the 1931 period. Some of this increase is due to the fact that 55,000 retail druggists in the United States handle these products without a cent of profit to themselves, and the churches furnish a growing number of happy, willing customers Yes, people are gullible.—THE INDIAN TEMPERANC NEWS.

Swimming in the Open-Air

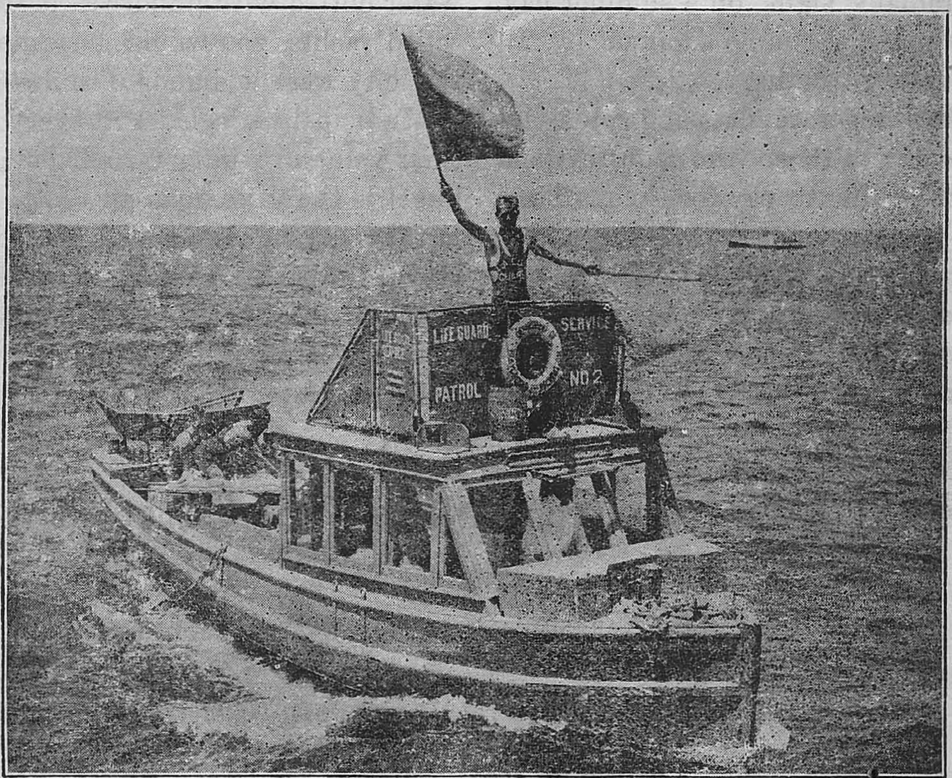
By

Kathryn Cleveland

If statistics can be believed, the health of the younger generation in the large towns is better in Germany than in most other similarly crowded centres of population. This is probably due to a very large degree to the prevalence of open air swimming baths all over the country. Children learn swimming at school and are encouraged to pursue this healthiest of sports.

School-children in parties are admitted free to their local baths and individually pay only a penny for admission, but many baths, especially beach baths, are absolutely free. No lake or river but has its swimming and wading regions, many of them idyllically situated.

There is a good deal of inofficial bathing, of course, from improvised dressing-rooms behind trees and bushes, but the wise authorities wink at this and content themselves with keeping the children and young people away from the dangerous places. Summer days in Germany often reach very high temperatures and



Floating Ambulance for Los Angles Beaches: Latest design equipped with everything for life saving and resuscitation from inhalators to stretchers and hospital equipment. It is 35 feet long and has a speed of 15 kiloms.

the water is the most tempting place.

A model of its kind is the Wannsee-bad, a few kilometres from Berlin. Here, too, admission costs only a penny for children and two pence for adults and cheap electric trains are run out in summer, reaching the shores of the lake from the heart of the city in half an hour. This beach, reinforced every spring by loads of real sea-sand brought from the coast, is a radiant sight on a summer day. Its system is the same adopted by all these open air baths.

It has separate dressing-cabins let for the day to those who require them and are willing to pay for them. Then there are temporary cabins, whose tenants give up their clothes and receive a tab receipt on a double string to wear round the neck. Large general dressing-rooms, one for men and one for women, are provided free.

This bath has covered promenade terraces, cafes, restaurant, ping-pong courts, free gymnastic instruction and kindergarten teachers to look after the children. The pine-covered hills of the March of Brandenburg rise up behind the sandy expanse and standing on the topmost terrace on a Saturday afternoon, looking from the brightly-dressed bathers to the further blue water dotted with hundreds of white-sailed yachts, you would imagine that the city was a hundred miles away.

Municipal baths exist in every city, their value in winter is indisputable—but it is the little open-air baths that tan the skins of the populace and put brawn into their muscles and the light of health in their eyes. In summer, bathing should be done out of doors, and not under a roof.

Infant and its Immediate Care

By

G. NARASIMHASWAMI AIYANGAR,

Vizianagaram.

"**Parents should be cleanly wed**
Children must be nobly bred
Wisely fed and firmly led"

IT is not so easy a thing to nourish an infant as one is apt to think. If an uncared for child grows healthy and robust, it is not because that infants require no attention but because of the mercy of Providence. Exceptions cannot be taken as rules, and one should always try to err in the right direction.

The responsibility of an infant rests entirely with the attendant woman, who should have the utmost patience, care and self-sacrifice in nurturing it. The results of any inaccuracy in attention although trivial at the moment would either cost the life or maim and weaken the child to such an extent that no amount of care in after life would bring it to a perfect state. Everything depends on the healthy way in which the baby grows in infancy. Let us at the outset, take

into consideration the foetus from the time it is inside the womb till it comes out.

"Foetus" is the name by which the infant is known when inside the womb of its mother. Special attention cannot be bestowed on it from outside and hence nature protects the infant by means of a fluid in which it floats. This fluid is of the body temperature and prevents infection of the foetus. The life giving substances are received by the 'foetus' from the mother's blood and the waste matter from it is transferred through its blood into its mothers from where they are excreted. That is, this exchange of of nutritive and waste products occurs through (what is called the "after-birth") the placenta. There is no direct communication between the foetal and maternal circulation.

The foetus after it is born has to come into contact with strange and different objects with which it had no previous contact. It has to drag on an independent existence just like every one of us, although it was depending hitherto on its mother.

The baby after it is born, begins to cry and with it the lungs are inflated and breathing is established. After the umbilical cord is tied the circulation assumes a regular course, and changes, as in adult life take place.

The first care regarding the new born baby is to see that it cries vigorously. The room in which labour takes place should not be exposed to winds. After the cord is tied and cut the infant must be placed well wrapped. The infant cannot withstand exposure to temperature which is below that of its body.

Doubts have been expressed as to whether a baby has to be given a bath immediately after birth. Some are of the opinion that the bath should be dispensed with among the weaklings at any rate till the cord is healed, since it is stated, that the weight of such a baby would be decreased and that the chances of infecting a baby through the navel by such a bath, would be great.

Generally, a mature baby may be given a hot bath after the cord has been separated. The body during the bath, should not be rubbed, as it might irritate the skin which is very delicate. After the bath, which should be of a few minutes duration, the body should be sponged. Daily baths are quite essential instead of baths once in three days.

The immediate removal of the umbilical cord would deprive the baby of considerable amount of blood. Hence the cord should be cut when it ceases to pulsate. The ligatures should be tightly applied. Ten days afterwards the stump of the cord falls down for want of blood circulation. Infections of the cord are frequent, hence special aseptic precautions have to be taken with regard to it. The umbilicus must be covered with sterile gauze and kept dry till it is healed.

Want of attention to the genitals would be a frequent cause of disease among infants. Every time the infant passes stools, it should be wiped by a sponge dipped in hot water. The cleaning should be done from above to the back lest faecal matter be introduced into the genitals of the female infant. No such attention is necessary to the male. The wrapper has to be

changed whenever soiled by urine. Attention has also to be paid to the mouth, the ears and the nose. The mouth, the ears and the nose have to be cleaned by a sterile cloth to remove any mucus from them.

Eyes require more attention. Parental lapses can be attributed for the blindness of infants from birth. The baby's eyes are likely to be infected if there were to be any vaginal discharges in the mother at the time of birth. The terrible scourge of gonorrhoea is mainly responsible for the blindness of infants from the time of infancy. If there is any suspicion of discharge in the mother the eyes should be carefully treated by an outside medical attendant as even midwives are liable to carry the infection from their hands to the child's eye if any attempt is made to wash them.

Some infants will have a certain fluid in their breasts during the first week of birth. Any attempt to remove the same will cause abscess. It should be left to itself protected by a bandage since it will subside of its own accord.

After the first few days of its birth the infant passes stools of a dark green colour which after the fourth day changes to that of light yellow. It is not desirable to give castor oil.

If the infant does not pass urine or motion after birth careful examination has to be made to see whether any developmental defects are present and if found, have to be attended to.

From the time of infancy regular habits have to be inculcated to the baby, else the seed sown cannot be uprooted easily. The attendant on the infant can be the best guide in this respect. The baby has to be held over at regular intervals for defaecation and passing urine, by which the control of both the bowels and the bladder can be regulated.

Some infants are born with deficient breathing, although the heart would be beating. Medical aid has to be sought promptly without leaving the baby to its fate.

A stitch in time saves nine, and if infants were taken care of in the earlier stages, a lot of trouble and waste of money can be avoided subsequently. Infant mortality would not be so very appalling as is now in India if every one takes care of the infant. The infant of to-day is the citizen of to-morrow and if we allow a number of infants to die, the population would fall down. Let our slogan be "Save the Babies".

Modern Civilization and its Effects Upon Health

By

N. RAMAKRISHNAN,

Vellore.

"EVERY man is entitled to his century" declares Sir J. C. Browne.

"Man" it is stated in the Mahabharata "is endowed with a period of life extending for a hundred years and with sound health and strength."

The truth of these statements is brought out by the fact that many of our ancestors did celebrate their centenaries to the great delight of their friends and relatives. Then the question that usually arises in these days is, "What are the causes of disease and premature death among the present generation in spite of the improved methods of living, modern sanitary appliances, health instructions and demonstrations organised by the Public Health authorities and the publication of numerous journals and magazines devoted to health topics?" The answer to this question is not far to seek.

Modern civilization, from the standpoint of health, has, inspite of its external comforts, charm and beauty, played a conspicuous part in the causation and spread of even new diseases, the names of which are still unknown to the medical world; and it is with this topic I have ventured to deal now in all its aspects.

Machinery. — We are now in the threshold of the machine age and it seems to be a fashion to use machines for almost every purpose. A time will come when a machine will put the food in the mouth, saving a lot of our labour and time. Machine after machine is being invented to do the work of the limbs. Apart from the fact that machinery is useful for a big businessman to save time and money, it has caused immense damage to the health of the public in more ways than one.

The machines, excepting a few, have made us almost lazy and inactive. The result is the absence of any physical work which is one of the essentials for the upkeep of one's health and strength.

In the primitive times a man was accustomed to go from place to place either by walk or by an ordinary cart. Both these means gave him physical exercise. The jolting of the cart is one of the exercises in that it prevents the stagnation of any bad matter in a particular part of the body. But the modern "civilised man" prefers costly conveyances such as motor-cars, motor-buses, trams, aeroplanes etc., which render the body completely inert, not to speak of the countless accidents they cause every year. To add to this, the motor vehicles when passing on the roads produce clouds of dust which carry millions of disease germs, the chief of them being the tubercle bacilli. It is no wonder, therefore, that tuberculosis that was once supposed to be a very rare disease has now become widely prevalent in all countries.

Before the introduction of machinery, paddy and other grains were hand-pounded and these retained all

their vitamins. • But the modern machine-milling and polishing destroy their nutritive properties and give rise to many diseases: for example, Beri-beri is a disease that is chiefly attributed to eating polished rice which is devoid of the "B" vitamin. Rice forms our staple food and if this is deprived of its vitamin contents, the body, for want of the same, becomes subject to many a malady.

Dress.—As the climate of India is hot almost throughout the year, our ancestors were using only a dhoti and shawl exposing the major part of their bodies to the sun. But the modern fashionable man always covers his body with too many costly and tight garments such as coats, shirts, trousers, hats, boots, etc., which prevent the Nature's strength-giver and germ-destroyer viz., the Sunlight from acting upon the skin, with the result that the body loses gradually the disease-resisting power and becomes an easy prey to lung and skin diseases. These modern garments are suited only for the cold countries to protect the body from the extremes of cold. • But in India they are quite unnecessary and unwholesome.

Occupation.—The so-called "civilised man" of to-day thinks that it is beneath his dignity and prestige to work on his own soil in his own village where there is abundance of fresh air and sunshine. He migrates to a town or city and ekes his livelihood at the sacrifice of his health by working at the desk in ill-ventilated offices or in smoky factories. Again he is tempted to indulge in all sorts of amusements such as dramas, cinemas ets., which apart from their educative value, tend to undermine the health. In the first place amusements attract the healthy as well as the sickly under the same roof and thus go a great way in spreading the contagious diseases on account of their close proximity. Most of the modern dramas and cinemas show mere love scenes which cause erotic excitements and the consequence is that many spectators. sooner or later, become morally corrupt.

(To be continued.)

Overweight Shortens Life

The idea that plumpness is a sign of health was exploded long ago as regards adults. In persons under thirty years of age, it is true that underweight, especially when pronounced, is good ground for suspecting the presence of serious disease, such as tuberculosis, Grave's disease, deep-seated cancer, or some marked cause of nutrition disturbance.

In persons more advanced in years, especially those past middle age, there is an almost universal tendency to take on weight. A slight increase in weight at this time of life is not a matter of serious moment but a marked increase has been shown by the life insurance companies to be an unfavourable indication as regards life expectancy; that is, old people who are lean have a better chance for long life than persons of the same age who

are overweight. In fact, carefully compiled statistics have clearly shown that persons past fifty years of age who are ten per cent under-weight, have a decided advantage over persons of the same age who have the average weight. That is, their life expectation is greater.

Recently, the experts of the United States Public Health Service have taken up the study of this subject and fully confirmed the observations made by insurance experts. The *New York Times* for August 25 presents the following summary of the official report recently published:

"By the time that middle age is reached, these figures indicate it is a definite advantage to be under the average weight for height," says the report.

It also shows "a great excess of mortality among overweight persons, whatever the age, and also an excess among young adult underweight persons."

The conclusions are drawn from records of more than three thousand men, from 1909 to 1928, showing the ratio of actual deaths to expected mortality, according to different weight groups. In the following table, figures below 100 indicate less than the expected death rate; those above 100 indicate more than the expected death rate:

WEIGHT CLASS.	AGE GROUP. 20-29	30-39	40-49	50 and Over
25 lbs or more underweight ...	118	105	83	77
10 to 20 lbs underweight ...	101	94	76	85
5 lbs under to 5 lbs over-weight ...	92	84	87	92
10 to 20 lbs overweight	99	88	94	90
25 to 45 lbs overweight	113	123	125	119
50 lbs or more overweight ...	163	143	144	130

Overweight people have the worst of it in an analysis of the death rate from fifteen causes among men classified as twenty-five pounds or more underweight; "standard lives" or "normal" men, and those fifty pounds or more overweight.

Figures on Various Diseases.—In this analysis, says the report, tuberculosis is the only disease "showing any marked excess mortality among underweight persons. On the other hand, a large number of causes of death, primarily degenerative in nature, show an excess among overweight persons."

"Tuberculosis of the lungs and other tuberculosis takes by far the heaviest toll among people twenty-five pounds or more underweight, of all ages, the statistics show.

Organic heart disease deaths among those over forty-five years of age are 253 per 100,000 for persons fifty pounds or more overweight, 213 for those of more nearly normal weight and only 161 for those twenty-five pounds or more underweight. The heart disease death rate is also by far the highest for overweight men in the age group thirty to forty-four.

Death from appendicitis and related troubles are highest for overweight men of all ages. Among those over forty-five, there were 43 per 100,000 for the overweight group, 25 for the normal and 14 for the underweight. Cirrhosis of the liver caused many more deaths among overweight men thirty years of age and over than other weight groups. Nephritis and Bright's disease took the heaviest toll of men fifty pounds or more overweight of all ages. For those over forty-five the ratio is 171 per 100,000 for overweight men,

123 for normal, 109 for underweights. Diabetes likewise takes heaviest toll among overweight men of all ages.

The same applies to cerebral or brain haemorrhage and apoplexy. Among men over forty-five the ratio is overweights, 156 deaths per 100,000; normal, 118; underweights, 67.

Cancer death rates were practically the same for all weight groups over forty-five. Pneumonia deaths were greatest among those underweight over thirty years of age. Deaths from typhoid fever and influenza varied little among weight groups.—*Good Health*.

Diet for Improving the Nutrition of the Poor

1. A diet in which bread, potatoes and margarine figure prominently requires to be supplemented with large quantities of milk, cheese, or green vegetables to ensure an adequate intake of calcium and other food factors.

2. A certain amount of unmilled cereal should be eaten.

3. A large intake of milk—a litre per day or more—is necessary for growing children and pregnant and nursing mothers.

4. Skim milk, cheaper than whole milk, is as valuable a food, except that it lacks fat and vitamins A and D.

5. Cheese is a cheap source of animal protein and minerals and should bulk fairly largely in the diet.

6. If no butter is eaten, green vegetables and carrots, which contain vitamin A, should be consumed in greater quantities.

7. Greater use should be made of 'Vitaminised' margarine.

8. Fat fish, such as herring, is a cheap source of valuable food factors and should, if possible, figure in the diet.

9. Muscle meat is a less valuable foodstuff than glandular organs or blood; the consumption of blood-or-liver-sausage at the expense of muscle meat is a change for the better.

10. Infants and children need cod-liver oil, which supplies vitamins A and D, as an addition to the ordinary diet of Western civilisation; freedom from rickets cannot be assured without such provision.—Quarterly Bulletin of the Health Organisation of the *League of Nations*, March '33.

"To thine own self be true, and it must follow as night the day, thou canst not be false to any man".

Health Tit-Bits

Blind man gets sight.—A triumph of optical surgery has given sight to Henry Watson of Newcastle (29) blind since he was two years old. The case was always regarded as hopeless until a Cardiff specialist performed the most delicate operation of substituting the corneas from the eyes of two other blind men for Watson's diseased corneas. Most famous Surgeons, including Sir Duke Elder, visited Watson in hospital.—*Reuter*.

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Disease from Polluted Water *Parker, L. T.; Municipal Sanitation, May, 1933, p. 164.*—Numerous controversies have arisen from time to time with respect to the liability of a municipality for damages as a result of typhoid fever and other disease contracted by users of city water.

Generally speaking, a municipality may be liable in damages for sickness or death resulting from drinking impure water, provided the testimony proves conclusively that the illness was contracted as a result of polluted water. On the other hand, if the evidence fails to prove conclusively that the illness resulted from polluted city water, the Court is likely to render a verdict in favour of the city.

For example, in Gentry v. Hovious, 55 S. W. (2d) 753, it was disclosed that a woman filed suit to recover damages claiming that she had contracted typhoid fever as a result of drinking polluted water.

During the trial, testimony was introduced showing that the woman had drunk the water for a period of ten months before contracting the disease. Although evidence was introduced showing that the water contained colon bacilli, the higher Court refused to hold the complaining person entitled to recover damages, and said :

"There are many ways by which typhoid germs may be taken into the system . . . . . . Flies are the most favourable carriers of typhoid germs ; next, water; and, third, milk. The germ is also taken into the system through eating fruit, fresh vegetables, oysters, ice cream, and some human beings are carriers of typhoid germs . . . . . This suit presents an isolated case of typhoid fever, with knowledge that the patient drank water that was infested with colon bacilli ; there being a possibility that this colon bacilli contained typhoid germs. We also have testimony that it is possible that Mrs. Gentry contracted this disease from other sources . . . . . On the other hand, we know that Mrs. Gentry drank this water for nearly ten months before she became ill. The other members of the family drank it without being affected, and it appears that it is possible for her to have become infected from other sources ; for example, flies bringing the germs from the open toilets."

Notwithstanding the outcome of this late litigation, a review of numerous higher Court cases indicates that a municipality or privately-owned water company may be liable in damages if the evidence indicates with reasonable certainty that the disease was contracted from polluted drinking water.

For illustration, in the leading case of Jones v. Mount Holly Water Co., 87 N. J. Law, 106, proof was given that three children who had been using water supplied by a water company became ill with typhoid fever in January. In affirming a judgment against the water company the higher Court said:

"There was plenary testimony from which a jury might have reasonably inferred that the water furnished by the defendant company was polluted with fecal matter and other filth, and contained germs indicating the presence of typhoid germs in the water. This testimony came from witnesses who spoke of the polluted condition of the water along the sources of supply of the defendant company in the month of December, and before that time and prior to the breaking out of a typhoid fever epidemic in Mt. Holly in the months of January, February and March."

In the case of Hamilton v. Madison Water Co., 116 Me. 157, it was shown that a typhoid epidemic was caused by sewage which emptied into a stream. The Court, by a process of reasoning based upon the evidence introduced, decided that every possible source of communication had been eliminated except the water which contained colon bacilli and, therefore, held the water company liable.—*National Health Review.*

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Diabetics still die.—That such a revolutionary discovery in medicine as the discovery of insulin should have made so little impression on the death rate of that disease for which it is specific, is to me a never failing source of astonishment. The easy explanation is that insulin is not a cure for diabetes. This does not impress me. Insulin is capable of preventing death from diabetes and if death from diabetes is postponed long enough the patient will surely die of something else. It is true that, when diabetes is recorded on a death certificate as one out of two or more causes of death, statisticians will classify the death as due to diabetes (since they must choose one cause for statistical purposes) in preference to such causes as influenza, measles, dysentery, rheumatic fever, diseases of the heart, the pneumonias, and some others. But there remain 127 ways in which the diabetic can die without any chance of diabetes taking the statistical blame. Note, for example, that if a patient dies from diabetes and tuberculosis, tuberculosis takes precedence as the cause of death.

A more plausible excuse is given by Dublin when he says: "The use of insulin has served to increase the number of cases after age 45, and in this way has helped to shift the mortality from the younger ages to the older ones." This does in fact explain that, while the death rate from diabetes has been increasing at ages over 45, it has been decreasing at ages under 45. *But it does not explain away* the distressing fact that at all ages (taken together) the death rate of diabetes is still steadily increasing. A generation ago diabetes was twenty-first among the causes of death; today it stands tenth.

Then there is the explanation offered by Bolduan "that the increase, during the past 30 or 40 years, in the diabetes

mortality in the various age groups, finds an adequate explanation in the more frequent recognition of the disease in recent years." Is this the answer? Has diabetes always been tenth among the causes of death and we have only just found it out? It has been possible to detect sugar in human urine since 1842, and Fehling's quantitative test for sugar has been available since 1848. Yet, says Doctor Bolduan, routine urine analysis for sugar was not introduced into the New York Hospital until some time between 1880 and 1890; and he adds, "undoubtedly the general practitioner lagged far behind". Perhaps anyhow the general public lags far behind the general practitioner. In New Mexico we have a relatively low death rate from diabetes. But here no less than one-third of our deaths take place without medical attention. When this third of the population receives medical attention there can be no doubt that the number of diabetes deaths will appear to increase.

But when all is said and done, it is still hard for me to avoid the conviction that since 1921, when Banting discovered insulin, a lot of people have died from diabetes who ought to have died from something else.—*South Western Medicine.*

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The Antiscorbutic Value of the Potato.—The chief vitamin value of the potato is its content of Vitamin C, the antiscorbutic or scurvy-preventing vitamin. G. F. Still has for years cured cases of infantile scurvy with "potato cream," and A. F. Hess has used ordinary mashed potato for the same purpose. Dr. Hess estimated that "in the countries of the temperate zone the consumption of potatoes is probably twice that of all other vegetables combined, and that for this reason our protection from scurvy rests very largely upon the potato." Weight for weight, we are told, cooked potatoes are comparable as antiscorbutics with apples and bananas, and contain approximately one-fourth of the concentration of Vitamin C found in oranges and lemons. Because of the quantities in which they are consumed, potatoes are of great importance in this respect.

In an article in the *Canadian Medical Association Journal*, Drs. Wright and Kirk report experiments with the use of the potato in the diet of twelve infants. They believe that it possesses some qualifications superior to cereals, and, because of its abundant cheap supply, its use as a substitute for cereals might help to alleviate the suffering of the poor during the depression.

The potatoes were first baked, then moistened with boiled milk. The potato was readily accepted by the infants. The earliest age at which potatoes were fed was six weeks. The greatest amount of potato porridge consumed by a single infant in one day was fifteen tablespoonfuls. The average was six tablespoonfuls.

The conclusion was reached that the potato can be satisfactorily substituted for cereal in infant feeding and, when freely used, it prevents the occurrence of scurvy.—*Good Health.* (*U. S. A.*)

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Clean Food, Clean Hands, Clean Dishes
Am. Jr. of Public Health (Editorial Section). 1934; XXIV, 2, pp. 140-141

The recent outbreak of amœbic

dysentery, which has caused more than 20 deaths, and which has spread to more than 100 communities throughout the country during the past few months, points to a task demanding the serious attention of all health departments : that of eliminating insanitary practices in the dispensing of food and drinks.

Amœbic dysentery first broke out in a Chicago hotel, were it was traced to food handlers. The disease spread rapidly to other food handlers and thence to the guests of the hotel, many of whom where visiting the Century of Progress Exposition, and it was carried back to more than the hundred widely scattered communities.

About 92 percent of all communicable diseases are transmitted through the mouth and nose. Surely there is no better place to break the chain of salivaborne and food-borne infections than at eating and drinking places. Transmission of disease by food and drink dispensers will end when the public demands that all food and drinks be served by healthy attendants with clean hands, in clean dishes.

Influenza, the common cold, tuberculosis, pneumonia, scarlet fever, diphtheria, whooping cough, and Vincent's angina, are among the principal diseases that can be transmitted by unclean eating utensils. Pathogenic organisms are not removed by common methods of washing. After they are used and hands washed, more than 20 per cent of the organisms remain adhering to eating and drinking utensils.—*National Health Review.*

The Double Value of Sleep Before Midnight.—We often quote the old proverb that sleep before midnight has double value and each hour of it is worth two hours of sleep after midnight. And from our infancy we have been taught that early to bed and early to rise" makes a man not only heathly but also wise, indicating that both physical and mental vigour are especially augmented by sleep before midnight.

The truth of these accepted ideas has recently been demonstrated by a series of studies carried on by some German scientists in the Rhineland. The director of these studies claims that the mental and physical efficiency of the human race can be increased by an alteration in the rhythm of sleeping and waking hours. Fifteen experiments are recorded which suggest that the ideal time for sleep is before midnight, and the ideal amount of sleep if taken at this time of its greatest effect is four to five hours.

The experiments were carried out on young men students who all found that if they went to bed at 7 P. M. they woke spontaneously about 11 : 20 P. M., and were able to continue their work or study for the remainder of the twenty-four hours. Not only so, but their work improved in quality and far from showing any signs of fatigue, and after following this regime for six months or a year, their health and appetite were unimparied or improved. — *W.* in *Good Health (U. S. A.)*